August 27, 2018

Global Portland

Passive Tank Vent Mist Separation System

System Design Basis and Operation

Model ACC-PVS-350-SS

Design Basis
- heated asphalt and 6-Oil
- nominal displacement at 3500 bbl/h
- mesh pad operating differential pressure to be <0.2" WG at 3500 bbl/h pumping rate
- maximum removal efficiency of visible fraction
- corrosion resistance to low pH condensate

Description of Operation
Heated asphalt / 6-oil vapors are displaced by normal breathing and during pumping into the tank. The vapors are transported through a 12" diameter duct to the mist separator located at ground level immediately adjacent to the tank.

The vapors enter the top of the PVS mist separator through the inlet. They travel downward where they impact on the liquid stored within the PVS resulting in some coalescing and absorption into the liquid surface. A 180 degree turn results in some additional removal by inertial means.

The vapors then travel upward where they are passed through a stainless steel mesh pad. The mesh pad operates to remove liquid aerosols by coalescing them to larger droplets primarily by inertial impaction and interception mechanisms. Collected liquid drains down into the bottom of the vessel.

Maintenance Requirements
A differential pressure gauge is located across the mist eliminator mesh pad. Its maximum differential will be recorded during product receiving and will be an indication of when the mesh pad requires cleaning.

Collected condensate will be drained at regular intervals as determined by plant operations.

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10908-123 Street NW, Edmonton, Alberta, Canada T5M 0C9
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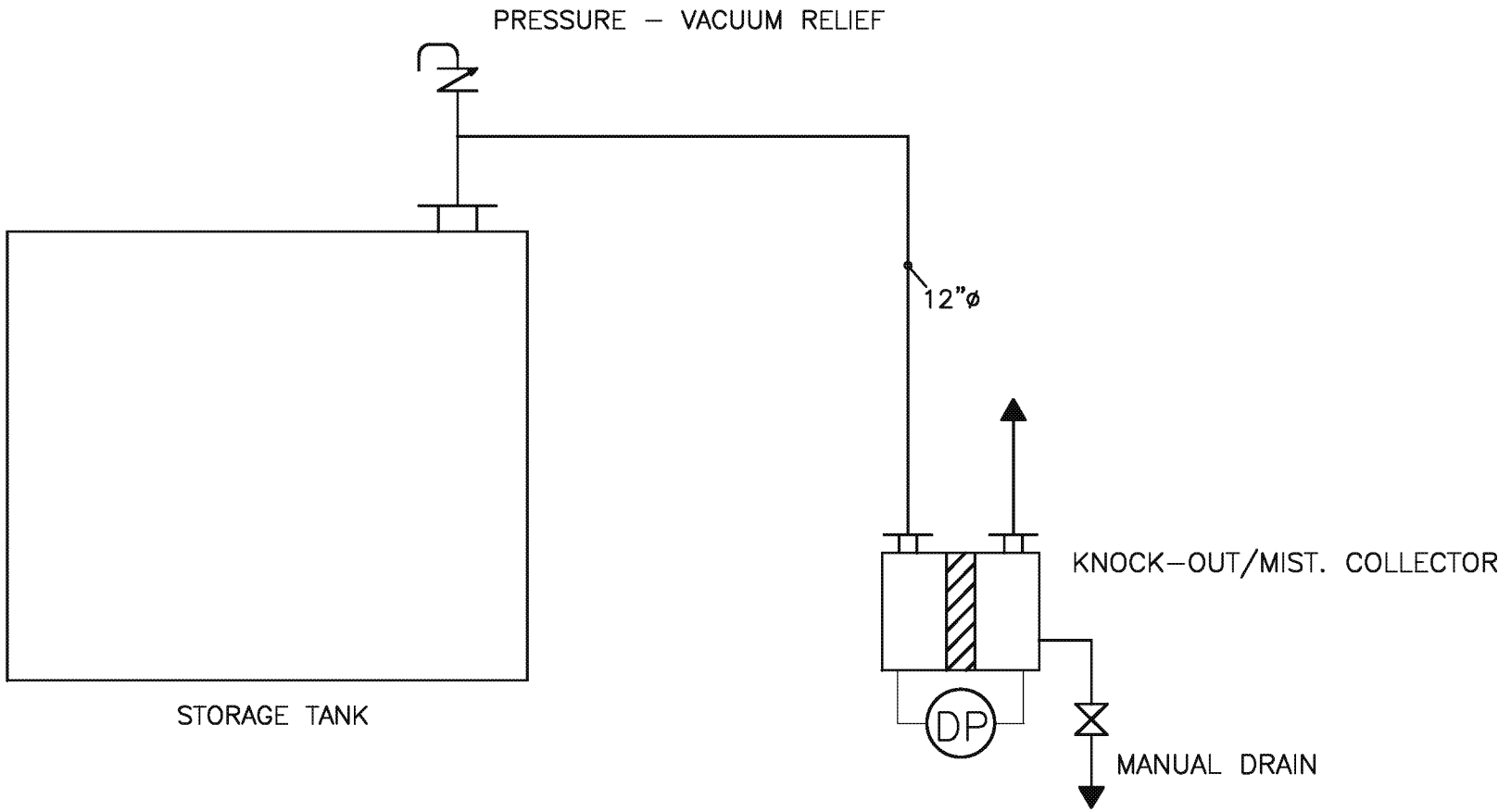

NOTES

REV.	REVISION	DATE	BY
0	ISSUED FOR REVIEW	08/22/18	JPX

PROPRIETARY INFORMATION

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CLIENT: GLOBAL

PROJECT: PORTLAND TANK VENT MIST COLLECTOR

SCALE: NTS

DRN BY: JPX

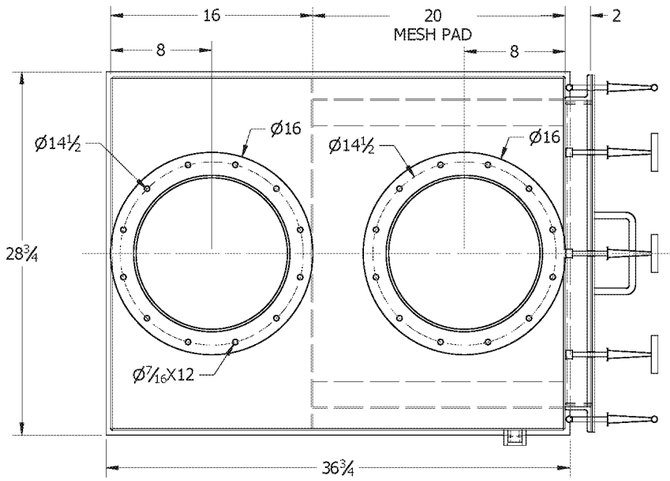
DATE: AUG. 18'

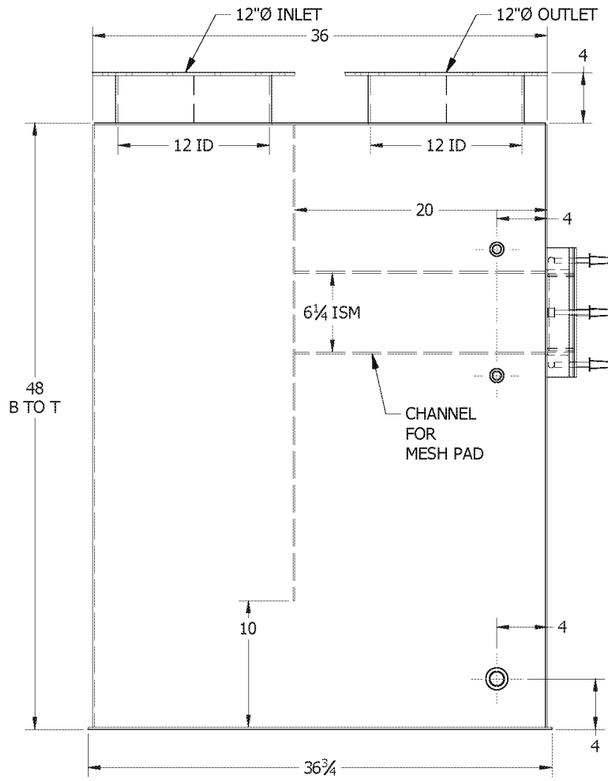
TITLE: PVS – PROPOSAL

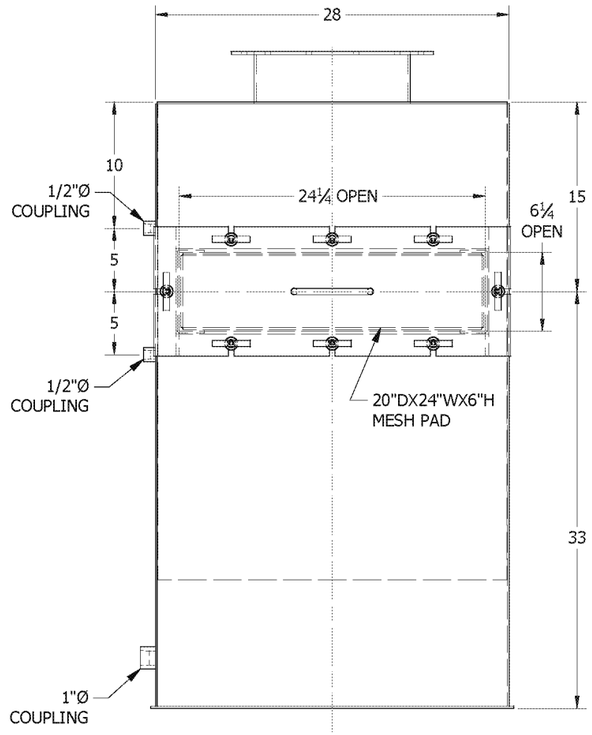
APPLIED CONTAMINANT CONTROL LTD.
10908–123 STREET
EDMONTON, ALBERTA
CANADA T5M 0C9
(780) 413–6634

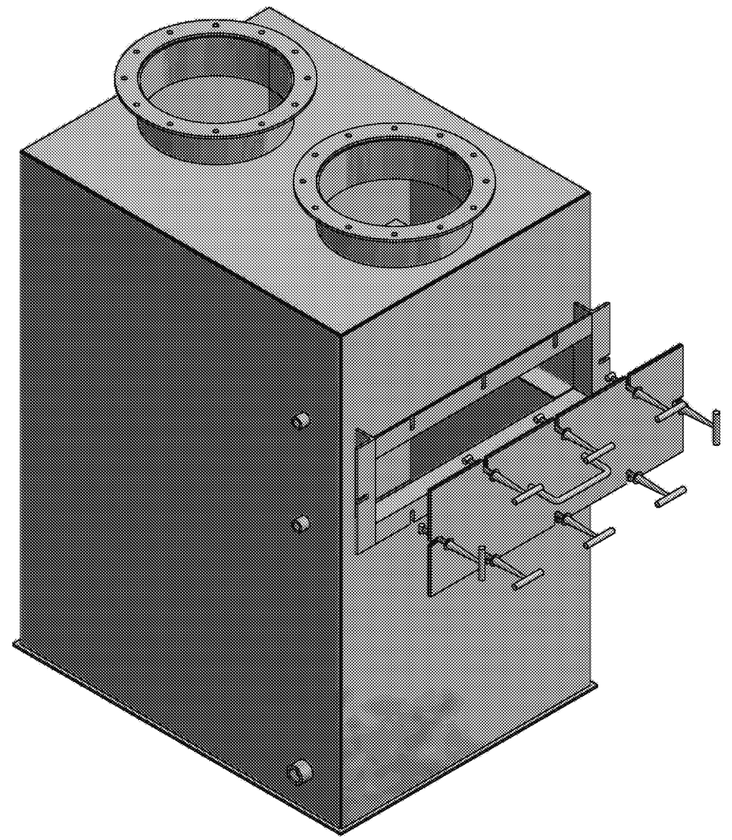
DWG # PVS – PROPOSAL

NOTES:
- **TOTAL WEIGHT ≈ 513 lbs**
- **10 GA 304SS WALLS&TOP, 3/16" 304SS BOTTOM&DOOR**
  1/4" 304SS FLANGES









REV	DESCRIPTION	DATE	BY
0	ISSUED FOR REVIEW	08/22/2018	JPX

CLIENT: GLOBAL

PROJECT: VENT SYSTEM

SCALE: NTS

DRN BY: JPX

DATE: 08/22/2018

TITLE: ASSEMBLY VIEWS

S.O No.

1 of 1

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